

**2002 – 2003**

**WISCONSIN**

**EMERGENCY MEDICAL SERVICES**

**STATE PLAN**

**Submitted by:**

**Department of Health & Family Services**  
**Division of Public Health**  
**Bureau of Emergency Medical Services & Injury Prevention**

## 2002 – 2003 WISCONSIN EMERGENCY MEDICAL SERVICES STATE PLAN

### EXECUTIVE SUMMARY

The 2002 – 2003 Wisconsin Emergency Medical Services State Plan is prepared in accordance with s. 146.53 (2) Wisconsin Statutes which directs the Department of Health and Family Services to prepare a state emergency medical services plan which shall include identification of priorities for changes in the state emergency medical services system for the two years following preparation of the plan. The Department shall provide a copy of the state emergency medical services plan biennially to the legislature under s. 13.172 (2) Wisconsin Statutes.

The National Highway Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA) national *EMS Agenda for the Future* provided the guidance and vision for the 2002 – 2003 Wisconsin Emergency Medical Services State Plan. The plan contains Wisconsin's overall goal for the future, which is to achieve an effective, efficient, and integrated Emergency Medical Services (EMS) System for Wisconsin.

The plan is a result of recommendations from the National Highway Traffic Safety Administration (NHTSA) Technical Assistance Team reassessment of Wisconsin's EMS system, which was conducted in April 2001. The goals, objectives and timelines for implementation and completion of these recommendations were identified and developed during a planning retreat by the Department of Health & Family Services - Bureau of Emergency Medical Services and Injury Prevention (BEMSIP) and the State EMS Advisory Board. The goals were prioritized as (1) immediate goals – completion within 1 year, (2) short-term goals – completion within 1 –2 years, (3) intermediate-term goals – completion within 2- 5 years, and (4) long-term goals – more than 3 years to initiate and less than 10 years to complete.

The plan is divided into three major sections: (1) the *introduction* which includes the mission and vision statements, assumptions, and a description of the current scope of practice within each level of emergency medical services provider (2) the *status report* which summarizes the developments, accomplishments, and status of goals that have occurred as a result of the 2000 – 2001 state plan and (3) the *strategic plan* which provides background regarding each NHTSA EMS system component, followed by the identified prioritized goals to accomplish the recommendations.

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## **PREFACE**

The 2002-2003 Wisconsin Emergency Medical Services State Plan is a summary of recommendations that identify priorities for change in the state EMS System for this two year period. The plan is divided into three sections.

### **Section 1 – Introduction**

This section provides background information and frames the current State EMS System. It includes a mission and vision statement, assumptions used in preparing the report, and a summary of the levels of EMS care in Wisconsin.

### **Section 2 – Status Report**

This section of the plan summarizes the developments that have influenced recent activities in Wisconsin. Also included in this section is a summary of activities by the Bureau Emergency Medical Services - EMS Systems & Licensing Section, EMS Advisory Board, Physician Advisory Committee, the State EMS Medical Director and the Statewide Trauma Advisory Council.

### **Section 3 – Strategic Plan for Wisconsin EMS**

This section is a combination of two evaluations done for the Wisconsin EMS System. The first evaluation resulted in recommendations by a National Highway Traffic Safety Administration Technical Assistance Team which conducted their reassessment visit of Wisconsin's EMS System in April 2001. The recommendations of the reassessment team were reviewed in context with other identified state EMS issues in a strategic planning and prioritizing retreat held with the Bureau of EMS and Injury Prevention and the EMS Board. The priorities and timelines contained in Section III are the result of decisions made at the retreat.

The goals were prioritized and given a timeline for completion that has been divided into four categories:

Immediate goals – Immediate term goals describe activities to be completed within 1 year. The activity may already be ongoing.

Short-term goals – short-term goals describe activities to be completed within 1 – 2 years.

Intermediate-term goals – Intermediate-term goals describe activities to be completed in approximately two to five years.

Long-term goals - long-term goals describe activities believed to require more than three years to initiate and less than 10 years to complete.

## **SECTION I - INTRODUCTION**

### **Background**

This document was developed by the Department of Health and Family Services - Division of Public Health - Bureau of Emergency Medical Services and Injury Prevention in conjunction with the EMS Advisory Board. The EMS Advisory Board, the EMS Physician Advisory Committee (EMS-PAC), the Statewide Trauma Advisory Council (STAC) and the State Medical Director are four bodies that advise the Department of Health and Family Services (DHFS) on related issues. All four bodies can provide recommendations directly to the Department.

The EMS Advisory Board has statutory duties to appoint the EMS Physician Advisory Committee members, periodically review and make recommendations on rules changes, be consulted by the Department on Department proposed rule changes, advise and consult with the Department on EMS-Funding Assistance Program funding and be consulted by the Department on preparation of mandated reports. The EMS Advisory Board also discusses and makes recommendations to the Department on general EMS issues either assigned by legislation or raised by members of the public. Medical issues are referred to the Physician Advisory Committee.

### **Mission Statement**

The mission of Wisconsin Emergency Medical Services (EMS) is to provide a quality EMS System that will reduce both the human suffering and economic loss to society from the premature death and disability resulting from accident or illness.

The mission of the EMS Board and the Bureau of EMS and Injury Prevention is to provide leadership and support to the EMS community and to ensure quality emergency medical care for the citizens and visitors of Wisconsin. This is achieved through system development, education, injury and illness prevention, policy development, evaluation, medical direction and linkages with other stakeholders.

The mission is accomplished through the development and maintenance of an EMS delivery system that ensures a uniform quality and standard of out-of-hospital emergency medical care is available to all citizens of the state of Wisconsin.

This mission is achieved by providing a state level focal point for leadership and administration, coordination and technical assistance to all EMS providers and other system components. This system approach will include coordination of efforts to attain these goals with other state agencies (Department of Transportation and Wisconsin Technical College System Board) and advisory groups (EMS Board & Committees, Physician Advisory Committee, EMS for Children Committee, State Trauma Advisory Council and the State EMS Medical Director) having direct EMS program involvement.

### **Vision Statement**

In 1996, the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA) published the highly regarded consensus document titled the *EMS Agenda for the Future*. This was a federally funded position paper completed by the National Association of EMS Physicians (NAEMSP) in conjunction with the National Association of National State EMS Directors (NASEMSD). The intent of the document was to create a common vision for the

future of EMS. It was designed for use by government and private organizations at the national, state, and local levels to help guide planning, decision making, and policy regarding EMS. The *EMS Agenda for the Future* provides the following overall vision for the future, which also provides guidance for EMS planning and decision making in Wisconsin:

*“Emergency Medical Services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in a more appropriate use of acute health care resources. EMS will remain the public’s emergency medical safety net.”*

### **Assumptions**

Some common assumptions regarding Emergency Medical Services and Injury Prevention used during the development of the 2002-2003 State Plan include the following:

- EMS represents the intersection of injury prevention, public safety, public health, and medical care systems. A combination of the principles and resources of each is employed by EMS systems.
- The public expects that EMS will continue. EMS is viewed as a standard, valuable community resource that must always be in place. The public has come to expect an EMS response when it is faced with a perceived out-of-hospital medical emergency.
- EMS at the local level will continue to involve diverse organizations and personnel. Guiding principles are applicable to all EMS systems. However, the methods for applying such principles and the ability to reach specific process benchmarks will continue to be influenced by the nature of communities and the resources they possess.
- As one component of a varied and complex health care system, EMS will be significantly impacted by the continuing evolution of health care.
- There is currently a lack of information regarding EMS systems and outcomes. Despite many years of experience, we continue to lack adequate research and information regarding how EMS systems influence patient outcomes for most medical conditions, and how they affect the overall health of the communities they serve. Emergency Medical Services-related research usually has focused on one disease or operations issue, and often is conducted in only one EMS system. The conclusions may not be valid or applicable in other EMS systems.
- State and federal funding/financial resources will be decreasing. The appropriation of federal funding had a significant impact on initial EMS development. In an era of governmental fiscal restraint it is likely that federal funding for EMS activities will continue to decrease. Financial support for EMS systems will be, to an increasing extent, derived from unfound or undeveloped sources.
- Injury prevention has not traditionally been viewed as a primary role of EMS providers, but has been identified as an integral component of the EMS System. The integration of injury prevention into the EMS System development is essential to improving and promoting community health.
- EMS activities are intersecting more often with non-traditional partners. Increased participation for bioterrorism efforts, rural health issues and mainstream public health initiatives will continue to evolve as society changes.

### **Philosophy for Future Changes**

The Department of Health and Family Services, the EMS Advisory Board, the EMS Physician Advisory Committee and the State EMS Medical Director will guide future statewide EMS development based on the following overriding goals:

1. Provide a statewide framework for delivery of EMS care that also allows for local flexibility to implement specific area needs.
2. Keep in mind the value and necessity of the volunteer in all statewide EMS decisions. The volunteer is the backbone for EMS care in many parts of Wisconsin and must be considered in any decisions impacting training, scope of practice and time commitment.
3. Allow for more meaningful advanced care to all areas of the State, especially rural areas with long transport times.
4. Provide technical assistance and support to make administrative functions and delivery of service as easy as possible. This includes site visits to service providers and training centers.
5. Support legislation that results in prevention of injuries such as bills that require seat belt and bicycle helmet use.

## **LEVELS OF EMS CARE IN WISCONSIN**

There are five levels of EMS care in Wisconsin:

1. First Responder
2. EMT-Basic
3. EMT-Basic IV
4. EMT-Intermediate
5. EMT-Paramedic

In addition, applicants receive training permits to practice their skills in a field setting while they are completing training.

The training and scope of practice for all five levels have recently been evaluated and updated. Listed below are the licensing requirements for all five levels. All license levels require applicants to be at least 18 years of age, not have an arrest or conviction record that would substantially relate to the ability to perform as an EMT. A provider and medical director signature is required to practice. The pages following this summary include the scope of practice at each level.

### **Licensure requirements:**

#### **First Responder-defibrillation**

- Successful completion of a DHFS approved first responder course or first responder refresher course.
- Current acceptable Professional Rescuer CPR certification

#### **EMT-Basic**

- Successful completion of a DHFS approved EMT course consisting of 110-140 hours of training.
- Current acceptable Professional Rescuer CPR certification
- Successful completion of a National Registry written and practical exam

#### **EMT-Basic IV**

- Currently licensed as an EMT-Basic or documentation of equivalent training.
- Successful completion of a DHFS approved EMT-Basic IV course consisting of a minimum of 60 hours of combined classroom and clinical experience as an EMT- Basic IV
- Current acceptable Professional Rescuer CPR certification
- Successful completion of Wisconsin EMT-Basic IV written and practical exams

#### **EMT-Intermediate**

- Currently licensed as an EMT-Basic or documentation of equivalent training.
- Additional 335 hours of training including didactic, clinical and supervised field experience. Provisional EMTs-Intermediate are required to take 250 hours beyond the EMT-Basic level. Training must include ACLS that meets American Heart Association standards
- Successful completion of a National Registry written and practical exam

**EMT-Paramedic**

- Currently licensed as an EMT-Basic or documentation of equivalent training.
- Additional 1000 hours of training including didactic, clinical and supervised field experience
- Current training in ACLS that meets American Heart Association standards
- Successful completion of a National Registry written and practical exam

**FIRST RESPONDER:** First Responders are trained to stabilize a patient prior to the arrival of an ambulance. They are prevalent in communities where ambulance response times exceed 20 minutes. Although training levels vary (many first responders are also EMTs, RNs, etc.), it is generally expected that these responders should confine their level of treatment to maintaining airways, bandaging wounds, performing CPR and stabilizing the emergency scene to prevent further injury or remove dangers to rescuers and patients. First Responders are not to be used as substitutes for an ambulance service and cannot be dispatched without an ambulance also being dispatched to the scene.

There is broad statutory language for first responders to be certified in Wisconsin. To this point, the administrative rule to define a scope of practice for first responders is not in place. Administrative rules are being drafted and, in the interim, the recommended scope of practice for first responders is based on the National Department of Transportation curriculum. First Responders who are certified to defibrillate are covered by Wisconsin statute and rules for performance of defibrillation only. Requirements for first responder-defibrillation include affiliation with an approved defibrillation ambulance provider or first responder defibrillation provider and medical direction.

Licensed EMTs who operate as first responders may perform some EMT-Basic skills. However, an EMT should not perform those skills that require two EMTs unless there is a second EMT participating. EMT skills that require two EMTs include spinal immobilization boards, MAST pants, and traction splints. EMTs approved at advanced skill levels (non-visualized advanced airways, defibrillation, and epinephrine administration) cannot operate as individual practitioners as part of a first responder organization. In addition, assisting with certain patient medications that are taught in the revised EMT-Basic curriculum (1994 edition) require on-line medical direction and are beyond the scope of practice of a first responder. EMTs who are on the roster of the responding ambulance and arrive at the scene ahead of the ambulance are able to perform as EMTs, not first responders. These EMTs may use all their State authorized skills if they operate within the guidelines of the ambulance services approved operational plan and meet the requirements of medical direction for advanced skills. The scope of practice is summarized below:

<b>Skills Allowed</b>	<b>DHFS authorization or certification required for use of skill</b>	<b>Affiliation with a provider operating under an approved plan &amp; medical direction required</b>
All skills listed in DOT First Responder National Standard Curriculum (recommended skills) plus administration of oxygen and oral glucose in accordance with local protocols.	No	No
Defibrillation	Yes	Yes

**Recommended Scope of Practice for the EMS First Responder:**

1. Scene assessment, triage, scene safety
2. Basic airway management - Head tilt, chin lift, jaw thrust
3. Use of pocket mask
4. Administration of oxygen in accordance with local protocols
5. Suctioning
6. CPR
7. Obstructed airway management
8. Bleeding control via direct pressure
9. Spine immobilization through manual stabilization and basic splinting
10. Administration of oral glucose in accordance with local protocols
11. Use of automatic defibrillation where approved

**EMT-BASIC:** A Wisconsin licensed EMT-Basic may perform any of the approved EMT-Basic skills they have been trained to perform except those that require 2 persons, affiliation with an approved ambulance provider, or medical direction. The service medical director authorizes the use of skills such as defibrillation, non-visualized airways, aspirin administration, glucagon administration, albuterol and epinephrine. Provider approval for the use of these skills is granted in writing once the required documentation has been received and reviewed by the EMS Systems and Licensing Section staff. The scope of practice is summarized below:

<b>Skills and Medications Allowed</b>	<b>Affiliation with a Provider Operating under an Approved Plan &amp; Medical Direction Required</b>	<b>On-line Medical Direction Required</b>
All skills listed in DOT EMT-Basic National Standard Curriculum	Yes for those skills requiring medical control (on-line or off-line).	No. Local medical director decision.
Defibrillation	Yes	Yes, after second set of stacked shocks.
Non-visualized advanced airways	Yes	No. Local medical director decision.
Epinephrine administration	Yes	No. Local medical director decision.
Glucagon administration	Yes	No. Local medical director decision.
Nebulized albuterol administration	Yes	No. Local medical director decision.
Aspirin administration	Yes	No. Local medical director decision.

### **Scope of Practice for EMTs-basic**

#### **Allowable skills**

1. Use of airway adjunctive equipment including non-visualized advanced airway
2. Administration of oxygen
3. Use of glucometer (with approval)
4. CPR
5. Non-invasive emergency procedures
6. Splinting
7. Wound management
8. Use of communications system
9. MAST pants
10. Automatic external defibrillation
11. Manual defibrillation
12. Assisting the self-administration of patient's medications, with medical direction
13. Other skills and procedures as outlined in the Skills and Procedures manual

#### **Allowable Drugs**

1. Oral glucose preparations
2. Activated charcoal
3. Syrup of ipecac with medical direction
4. Epinephrine 1:1000 and 1:2000 with medical direction
5. Glucagon with medical direction
6. Aspirin with medical direction
7. Nebulized albuterol with medical direction

**EMT-BASIC IV** - The EMT- Basic IV is a recent addition to the EMS system in Wisconsin. An EMT-Basic IV, in addition to having all EMT-Basic skills, is trained in the use of intravenous fluids and drugs for cardiac emergencies (Nitroglycerin), diabetic emergencies (50% Dextrose), and narcotic overdoses (Naloxone). With additional training they may perform endotracheal intubation. These skills are performed only when authorized by a physician, while working with an ambulance service specifically licensed by the EMS Section as an EMT-Basic/IV service or above. If serving with a BLS unit, the EMT-Basic/IV must confine his/her practice to the BLS level.

The scope of practice is summarized on this page:

<b>Skills and Medications Allowed</b>	<b>DHFS Certification Required For Use Of Skill</b>	<b>Affiliation with a DHFS approved Provider &amp; Medical Direction Required to Practice</b>	<b>On-line Medical Direction Required</b>
All skills listed in DOT EMT-Basic National Standard Curriculum	EMT-Basic or EMT-Basic IV license required for all EMT-Basic skills.	Yes for all skills that require medical direction.	No. Local medical director decision.
If operating as an EMT-Basic IV, all skills listed in WI EMT-Basic IV curriculum.	License required for all EMT-Basic IV skills.	Yes	Point of contact with on-line medical direction is listed in protocols approved by the State and is at the medical director's discretion.
<b>Additional Training Module:</b>  Endotracheal intubation	No	Yes	Point of contact with on-line medical direction is listed in approved protocols and is at the medical director's discretion.

#### **Scope of Practice for EMT-Basic IV**

##### **Allowable Skills**

1. All EMT-Basic skills
2. Blood drawing
3. IV fluid therapy (initiation and maintenance)
4. Use of advanced airways
5. Administration of approved medications via the following routes: Subcutaneous and intramuscular injections, nebulized aerosol and intravenous
6. Monitoring blood glucose with glucometer
7. Manual defibrillation

##### **Allowable Drugs**

1. 50% dextrose – intravenous
2. Naloxone - intravenous & intramuscularly
3. Epinephrine, subcutaneously
4. Nebulized Albuterol
5. Nebulized Ipratropium (Atrovent)
6. IV solutions, D5W, NS, LR
7. Nitroglycerin
8. Glucagon, Intramuscularly
9. Aspirin
10. Other drugs per protocols & approval by DHFS

**EMT-INTERMEDIATE:** A Wisconsin licensed EMT-Intermediate may perform any EMT-Basic or EMT-Basic IV skills under the guidelines previously listed. An EMT-Intermediate can also perform any EMT-Intermediate skills they are trained to perform, but only if affiliated with an approved EMT-Intermediate ambulance service provider and authorized by the service medical director. The scope of practice is summarized on this page.

Recent changes in the EMT-Intermediate curriculum both nationally and in Wisconsin have considerably expanded the traditional scope of practice. New content and training now allow for additional medications for the treatment of chest pain, arrhythmias, cardiac arrest, respiratory arrest, diabetic emergencies, congestive heart failure, tachycardic rhythms and seizures.

<b>Skills and Medications Allowed</b>	<b>DHFS Authorization Or Certification Required For Use Of Skill</b>	<b>Affiliation with a Provider Operating under an Approved Plan &amp; Medical Direction Required</b>	<b>On-line Medical Direction Required</b>
All skills listed in DOT EMT-Basic National Standard Curriculum	EMT-Basic, IV or EMT-I license required for all EMT-Basic skills.	No, for first response EMT-Basic skills.	Point of contact with on-line medical direction is listed in State approved protocols and is at the medical director's discretion.
If operating as an EMT-I, all skills listed in DOT EMT-Intermediate National Standard Curriculum.	License required for all EMT-Intermediate skills.	Yes	Point of contact with on-line medical direction is listed in State approved protocols and is at the medical director's discretion.

### **Scope of Practice for EMT-Intermediate**

#### **Allowable Skills**

In addition to EMT-defibrillation, the skills currently authorized under HFS 111 are:

1. Use of the non-visualized advanced airway;
2. Use of endotracheal intubation;
3. Use of end tidal carbon dioxide detector;
4. Use of peak flow meter;
5. Pulse oximetry;
6. Blood glucose analysis
7. Administration of approved medications via the following routes: Subcutaneous and intramuscular injections, nebulized aerosol intravenous, and intraosseous infusion.
8. Manual defibrillation
9. Needle chest decompression

#### **Allowable Drugs**

1. All EMT-Basic IV drugs
2. Nitroglycerin
3. Lasix
4. Epinephrine 1:10,000
5. Atropine
6. Lidocaine
7. Amiodarone
8. Epinephrine 1:1,000
9. Morphine Sulfate
10. Adenosine
11. Diazepam

**EMT-PARAMEDIC:** A Wisconsin licensed EMT-Paramedic may perform any EMT-Basic skills under the guidelines previously listed. An EMT-Paramedic can also perform any EMT-Intermediate skills they are trained to perform, but only if affiliated with an approved EMT-Intermediate ambulance service provider and authorized by the service medical director. An EMT-Paramedic can also perform any EMT-Paramedic skills they are trained to perform, but only if affiliated with an approved EMT-Paramedic ambulance service provider and authorized by the service medical director. The scope of practice is summarized below:

<b>Skills and Medications Allowed</b>	<b>DHFS Authorization or Certification Required To Use The Skills</b>	<b>Affiliation with an Approved Provider &amp; Medical Direction Required</b>	<b>On-line Medical Direction Required</b>
If operating as an EMT-Basic, all skills listed in DOT EMT-Basic National Standard Curriculum.	License required for all EMT-Basic skills. An EMT-Paramedic license makes an individual eligible for an EMT-Basic license.	No, for Basic skills. Yes for advanced skills including defibrillation, non-visualized advanced airways, and epinephrine administration.	Yes, for assisted patient prescribed medications and epinephrine administration. No for advanced airway and defibrillation. Local M.D. decision.
If operating as an EMT-Intermediate, all skills listed in DOT EMT-Intermediate National Standard Curriculum.	License required for all EMT-Intermediate skills. A EMT-Paramedic license makes an individual eligible for a EMT-Intermediate license.	Yes	Point of contact with on-line medical direction is listed in protocols approved by the State and is at the medical director's discretion.
If operating as an EMT-Paramedic, all skills listed in DOT EMT-Paramedic National Standard Curriculum plus other skills and medications approved by the State.	License required for all EMT-Paramedic skills.	Yes	Point of contact with on-line medical direction is listed in protocols approved by the State and is at the medical director's discretion.

## SECTION 2 - STATUS REPORT

### Data Collection and Analysis

#### **Recent Developments and Accomplishments:**

Past statewide efforts to collect pre-hospital data were continued in 2000-2001. However, evaluation of EMS data collection efforts to date, along with new data needs for emergency departments, trauma registries and other related data sources caused the EMS Board and the Bureau of EMS and Injury Prevention to reevaluate data collection and analysis. As a result, EMS data collection and analysis efforts were reviewed and refocused midway through the 2-year State EMS Plan. The result was a mixed evaluation of successes in this area.

Goals met in 2000-2001 included:

- Added a uniform advanced life support component to the ambulance run report and WEMSIS – the state developed prehospital software.
- Provided initial data report to assist with evaluation of Enhanced EMT-Intermediate pilot by May 2000.
- Evaluated run report use and compliance with mandated data elements.
- Evaluated WEMSIS provider voluntary participation rate by May 1, 2000. This includes the collection of all previously entered BLS (3.5 version) runs; identification and mapping of geographical areas using WEMSIS and coordination with other software.

There were a number of goals that were not met. The primary reason was that the percentage of ambulance services using the software did not expand as was hoped. This led to a small number of providers submitting data and insufficient run volume to generate meaningful data analysis. As a result, the following goals were not met:

- Identify a select number of conditions that will be analyzed for frequency of use and efficacy of treatment.
- Distribution of preliminary results of statistical analysis for combined BLS and ALS runs.
- Provide local and regional medical directors with data to facilitate their ability to conduct continuous quality improvement.
- Development of focal strategies for data analysis.
- Distribute the first formal results of analysis for WEMSIS ALS by September 1, 2000.
- Obtain 100% compliance level of reporting for epinephrine, advanced airway, and defibrillation data via WEMSIS or hand-tally method using defined data elements by Dec. 31, 2000.
- Collect essential data elements for statewide and regional analysis by August 1, 2000.

The lessons learned in 2000 and 2001 will be used in determining the next steps for statewide data collection and analysis. Of particular value will be the following areas that were considered in making the decision to go in a different direction for EMS data collection. These items were considered and will continue to be looked at in setting up a statewide data collection system.

- Identifying roadblocks to WEMSIS use and determining solutions
- Assessing overall capability to collect and transmit defined elements
- Begin development of standards to develop “best practices” guidelines by using collected EMS data.
- Development of statewide Continuous Quality Improvement plan for use at local, county, regional and state levels
- Evaluation of an EMS data initiative for compatibility with existing software programs being used by providers as well as hospital outcome data.
- Enlisting the participation of hospitals so that emergency room and discharge data can be used to build the necessary linkages through the health care continuum. Data stakeholders, including hospital EMS coordinators, EMS Medical Directors and other state agencies will be an essential component of this process.
- Coordination of data collection efforts with the Trauma System Development plan.
- Continue development of looking into grant and research opportunities using the output from data collection.
- Development of tools for testing overall validity of data collected.
- Building continuing commitments and alliances with data stakeholders.

## **EMS-Children**

### **Recent Developments and Accomplishments:**

The EMS for Children Advisory Board and Committees have been extremely active and dedicated to improving emergency care for Wisconsin’s children. The strength of the program has been in developing partnerships with public and private organizations as well as individuals to complete the tasks necessary to complete the tasks identified as priorities.

2000 – 2001 accomplishments met include:

- Increased partnerships with other agencies within the Department of Health and Family Services, Department of Public Instruction, American Heart Association, American Red Cross, Hospitals, University Systems, Extension Offices, Medical College of Wisconsin and other organizations to complete priority tasks.
- The number of volunteers across the state dedicated to improving pediatric emergency care has increased dramatically.
- 2001 Act 2 was signed into law, which protects unwanted newborns by relinquishment to prehospital and emergency care providers. A protocol was developed and advisory assistance was provided for rule making.
- EMSC Trauma Grant application to HRSA provided funding for the Trauma System development and educational sessions to provide professional and public education in the public health regions.
- Formal presentations about EMSC initiatives have been provided across the state, regionally and nationally.
- The annual EMSC and Injury Prevention Conference has been extremely successful in educating both traditional and nontraditional emergency care providers in clinical care, injury

prevention, child passenger safety, school health and youth initiatives. Participants who attended doubled from the first year to the second.

- Wisconsin EMSC e-mail system efficiently disseminates information statewide and nationally about pediatric emergency care issues and funding.
- Child Alert facilitators have been identified in all but 15 of Wisconsin counties. County Public Health Departments are including the Child Alert program into their consolidated contracts for Title V grant funding. Child Alert brochures are included in parent packets for the Wisconsin Traumatic Brain Injury Association, Down's Syndrome Association and the Hemophilia Association. Information and referral is provided statewide 24 hours a day/7days a week by Wisconsin First Call For Help Resource Center. A survey was completed by Child Alert facilitators and results were used for program improvement. Child Alert Facilitators met at the conference to discuss program improvement.
- Module 6 of the EMT-Basic Curricula has been revised and disseminated to educators across the state.
- Pediatric Assessment Triangle cards were developed as a pocket guide to pediatric patient assessment.
- PEPP Course Coordinator Courses were held statewide and included at least one instructor from each of the EMS training centers.
- Wisconsin EMS Coordinators have been active in promoting the Child Alert program, the PEPP course and the Color Coding system for pediatric emergency care.
- Kiwanis Organizations have been supportive of providing Broslow tapes to EMS provider services.
- An initial pilot of the Basic Emergency Lifesaving Skills in Schools (BELSS) workshop was held at UW Madison. Evaluations were extremely positive. Grant funding has been secured to improve and expand the program in Wisconsin as well as Minnesota, North Dakota and South Dakota. Partnerships have been established to support the program.
- Pediatric protocols for both ALS and BLS providers have been in development.
- EMSC was a partner in providing transportation safety education to the Native American tribes of Wisconsin, Minnesota and Michigan as a member of the planning committee and as a co-sponsor of the Native American Transportation Safety Conference.

Goals not met were:

- Development of a Wisconsin EMSC Resource Center to support sustainability, funding, increased staff support and expansion of the initiatives related to pediatric emergency care.
- Requirement of pediatric representation on Regional Trauma Advisory Councils (RTAC) within the structure of the State Trauma System development.
- Specific system of verification in pediatric resources and capabilities for hospitals.
- Plan developed to address organized youth sporting events related to emergency care.
- Pediatric Education for the Prehospital Provider (PEPP) has not been included as standard refresher curriculum.
- Study on Emergency Preparedness Guidelines for Physician Offices, Clinics and Urgent Care Centers needs to be completed and published.
- CPR and First Aid home study kit to be completed for Child Care providers.
- Basic Emergency Lifesaving Skills in Schools (BELSS) expansion including Wisconsin, Minnesota, North Dakota and South Dakota.

- Development of an electronic Child Alert database for children with special healthcare needs which is accessible 24 hours a day/7 days a week.
- Expansion of the Child Alert program in all counties of Wisconsin.
- Statewide database isn't available to analyze pediatric emergency care.
- Pediatric patient care protocols are to be approved by the Bureau and included into EMS education at all levels of prehospital care. They will be disseminated to all EMS services statewide.
- Interfacility transfer guidelines which include pediatric care need to be implemented statewide.

## **EMT-Basic**

### **Recent Developments and Accomplishments:**

EMTs-Basic in Wisconsin are national leaders in the scope of practice they are providing statewide. All EMS Providers in Wisconsin are providing defibrillation, non-visualized advanced airways and epinephrine for anaphylaxis. In addition, many EMT-Basic providers are using the optional medications of aspirin, albuterol and glucagon. This expanded scope of practice for EMTs-Basic provides broad, fundamental patient care statewide.

2000-2001 goals that were met include:

- Developed a plan for the inclusion of the new EMT-Basic skills into the EMT-Basic and EMT-Basic Refresher Curricula.
- Revised and updated the EMT-Basic rule (HFS 110) and implemented it in February 2001.
- Added the use of aspirin, albuterol and glucagon to the scope of practice for EMTs-basic.
- Developed and implemented the EMT-Basic IV level of care. This level is equivalent to the previous EMT-Intermediate level in Wisconsin and was created to enhance the care levels available to providers and patients.
- Developed and implemented the course curriculum for the EMT-Basic IV. Initial EMT-Basic IV courses were taught in 2001.
- Developed and updated EMT-Basic pediatric module in the curriculum.

## **EMT-Intermediate**

### **Recent Developments and Accomplishments:**

The EMT-Intermediate level experienced a complete review and expansion in 2000-2001. The ultimate result was a new level of licensure for the EMT-Intermediate that expanded the scope of practice significantly. This decision, in conjunction with the creation of the EMT-Basic IV level, expands the formal levels of EMS care providers to four: EMT-Basic, EMT-Basic IV, EMT-Intermediate and EMT-Paramedic. Significant accomplishments related to this license level included:

- The Enhanced Intermediate pilot projects were evaluated and approved as a new level of care in Wisconsin.
- Defined scope of practice for current EMT-Intermediate.
- Established competencies for completion of EMT-Intermediate course.
- Created a new EMT-Intermediate curriculum and transition course for existing EMTs-intermediate to upgrade to the new EMT-Intermediate level.
- Developed criteria for certification of EMT-Intermediate Training Centers.
- Developed minimal criteria for EMT-Intermediate instructors. Revised, updated, and implemented the EMT-Intermediate rule (HFS 111).

- Maintained current EMT-Intermediate level of care by creation of EMT-Basic IV level.

Goals not met were:

- Review competency-based education and evaluation and investigate methods to make EMS education more competency based.
- Look at the value and feasibility of using a modular approach for various levels of EMS education.
- Evaluate rules changes for scope of practice and training to determine impact on patient care.

## **EMT-Paramedic**

### **Recent Developments and Accomplishments:**

After considerable deliberation and debate, the EMT-Paramedic rule (HFS 112) was revised and implemented in December 2001.

### **Significant goals that were met include:**

- Defined scope of practice for current EMT-Paramedic.
- Created a new EMT-Paramedic curriculum.
- Developed criteria for certification of EMT-Paramedic Training Centers.
- Developed minimal criteria for EMT-Paramedic instructors.
- Reviewed and decided to use the National Registry examination for licensing EMTs-paramedic.
- Revised and updated the EMT-Intermediate rule (HFS 112) with implementation in December 2001. There is still one pending issue on paramedic staffing for existing paramedic providers.

Goals not met were:

- Review competency based education and evaluation and investigate methods to make EMS education more competency based.
- Look at the value and feasibility of using a modular approach for various levels of EMS education.
- Evaluate rules changes for scope of practice and training to determine impact on patient care.

## **First Responders**

### **Recent Developments and Accomplishments:**

A bill requiring certification of first responders was passed in the 1999 legislative session. The law requires formulation and approval of rules for certification and training that are formatted similar to the EMT-Basic. Unfortunately, there were no resources to administer this program included in the bill. As a result, certification of all first responders is still pending.

Preliminary work has begun on updating the First Responder rules (HFS 113). The revised rules will include an expanded scope of practice that has been recommended by the EMS Board and EMS Physician Advisory Committee. The expanded scope would include the use of non-visualized airways and epinephrine. Federal funding for bioterrorism may include staff resources to administer this program.

## **Injury Prevention**

### **Recent Developments and Accomplishments:**

The overall goal of the Bureau of Emergency Medical Services and Injury Prevention in the 2000-2001 State EMS Plan was to coordinate and further integrate injury prevention into EMS systems and communities in Wisconsin by utilizing data and educational programs.

Specific goals that were met include:

- Continue to promote and teach injury prevention and safety;
- Develop and build additional partnerships with other agencies and groups like Safe Kids Coalitions, Public Health Departments, local hospitals, and/or businesses who could assist the services with the costs of safety kinds of equipment, i.e., bike helmets and other injury prevention materials and resources;
- Develop and/or assist in the collection of data related to injuries in local communities as well as utilizing existing data for analysis.
- Ensure an evaluation component to the injury prevention related activities. Data will assist with the focusing of the activities as well as making sure they are outcome oriented.
- Annual EMSC injury conference. This conference attracted over 300 participants in its first two years.

## **Law and Rule Changes**

### **Recent Developments and Accomplishments:**

The EMS Board and Bureau Emergency Medical Services & Injury Prevention reviewed the EMT-Basic, EMT-Intermediate and EMT-Paramedic rules to update them to reflect current practice. The rules were evaluated and revised and were implemented in 2001 (EMT-Intermediate in early 2002). Included in this revision process was an attempt to make the rules more flexible to allow them to keep pace with rapidly changing medical practice. Significant rule changes include:

#### **EMT-Basic Rule Changes - HFS 110**

- Consolidates all advanced skill information into 110.
- Shifts approval of advanced skills to the service medical director and eliminates certification by DHFS.
- Creates a requirement that all services have an operational plan and consolidates plan requirements for all levels into one format.
- Requires all services to provide advanced skills.
- Allows the medical director to remove medical authority for an EMT if there are concerns about the EMT's training, skills or judgment.
- Adds optional use of aspirin, albuterol and glucagon.
- Adds language that allows more flexibility in adding new medications.
- Decreases cont. education for advanced skills: albuterol and epinephrine every 2 years; automatic or semi-automatic defibrillation, combitube, and glucagon every year; manual defibrillation every 6 months.

#### **EMT-Intermediate Proposed Rule Changes - HFS 111 (effective date: March 2002)**

- Allows flexibility in adapting national curriculum in whole or in part.
- Defines interfacility separate from prehospital 911 care.
- Adds requirements for field preceptors.
- Increases minimum number of training hours from 100 to 335.

- Specifies benchmarks/competencies that must be met to complete clinical and field experiences.
- Specifies that staffing requirements for interfacility transfers must meet the Interfacility guidelines.
- Rewrites operational plan requirements to make them consistent for all license levels.
- Allows the medical director to remove medical authority for an EMT-Paramedic if there are concerns about the EMT-Paramedic's training, skills or judgment.

### **EMT-Paramedic Rule Changes - HFS 112**

- Allows flexibility in adapting national curriculum in whole or in part.
- Defines interfacility separate from prehospital 911 care.
- Adds requirements for field preceptors.
- Increases minimum number of training hours from 750 to 1000.
- Specifies benchmarks/competencies that must be met to complete clinical and field experiences.
- Allows new EMT-Paramedic services to staff with 1 paramedic and 1 basic or above if specifically requested and authorized by the medical director.
- Specifies that staffing requirements for interfacility transfers must meet the Interfacility guidelines.
- Rewrites operational plan requirements to make them consistent for all license levels.
- Allows the medical director to remove medical authority for an EMT-Paramedic if there are concerns about the EMT-Paramedic's training, skills or judgment.

### **First Responder Rule Changes - HFS 113**

No revision was done on this rule. First Responder rule update and implementation is dependent on resources to implement the First Responder certification law. Rules would likely include the ability to perform additional skills if approved by the medical director. The First Responder-Defibrillation rule (HSS 113) will need to be updated to align it with the new Public Access Defibrillation law.

The EMS Section and EMS Board will regularly review rule language to ensure that it meets the changing needs that are necessary for providing medical care. The Department of Health and Family Services continues to look at a mechanism to make it easy to revise rules on a regular basis rather than do major revisions every several years.

<h2><b>Medical Directors</b></h2>
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### **Recent Developments and Accomplishments:**

The 2000-2001 State EMS Plan identified three major initiatives by the State Medical Director and Emergency Physician Advisory Committee Physicians.

- Finalize the scope of practice for the EMT-Intermediate level and assist with determining a curriculum to train these providers. This was accomplished in 2001.
- Increase local medical director involvement and offer training to these physicians. As the Trauma System for the State is placed into effect, look at the possibility of mandating medical director qualifications.

- The number of formal and informal contacts were expanded by the State EMS Medical Director, Dr. Rick Barney. Work has begun on developing an internet based medical director course that should be ready in 2002.
- Developed standard protocols for common situations such as field termination of resuscitation, DNR, no transport etc. Also developed minimal standard of care documents for each level of provider. These documents can be used as a guide in determining the scope of practice at the local level.
- General templates for all levels were developed and specific templates for the EMT-Basic level were completed in 2001. Template protocols will be completed in 2002 for the EMT-Intermediate along with best practice templates at the EMT-Paramedic level.

## **Resource Management and Service Administration**

### **Recent Developments and Accomplishments:**

Goals met in 2000-2001 included:

- The EMS Board recommended to the Department the concept of mini-grants using EMS Funding Assistance Program funds that remain after the formula payment is complete. It was felt that targeted grants to a small number of services would have more impact than a broad distribution of small amounts of money (\$75) to almost 400 providers. The process and application materials for grants were distributed and targeted grants awarded in 2000 and 2001.
- Assisted with innovative ideas such as regional coordination with FAP mini-grants.
- The EMS Section reinstituted site visits to providers. This was done with a large number of providers on an as needed basis.
- The EMS Section updated the Provider Handbook and included additional issues or areas that would be helpful for providers.
- Funding needs and use of current funding were reviewed in 2000 and the EMS Board and Bureau of EMS and Injury Prevention made recommendations for future funding options EMS should pursue. A partial funding option was adopted and requested as part of the State Trauma Plan.

Goals not met included:

- The EMS Section initiated a program to collect the “best practices” of ambulance services and share them statewide with providers. Two attempts to solicit this input only resulted in minimal response and the concept was dropped.
- The EMS Section and EMS Board discussed ways to assist with grassroots regional coordination of service. A template had been developed based on the success of the Fox Valley Mobile Healthcare Providers Alliance and will be used as a model for areas that want to institute some degree of regional coordination. Technical assistance on instituting this model will be coordinated through the EMS Section by either direct assistance or referring interested parties to the best resource. This goal was only minimally met because of lack of resources.

## **Technical Assistance**

### **Recent Developments and Accomplishments:**

Goals met in 2000-2001 included:

- The EMS Section information on the Department website was updated on a regular basis. The updates included posting of more information and forms for easier access by providers, EMTs, and the public.

- Site visits to providers continued in 2000-2001. The goal of these site visits was to exchange information with providers and get a better understanding of provider needs.
- The revisions of HFS 110 and HFS 112 and the pending revision of HFS 111 included a standardized format for operational plans at all levels. Combined with an electronic template that has been created, providers are now able to create, modify and update their operational plans electronically which will result in a considerable timesaving.
- The EMS Section has begun work for electronic submission of paperwork for training and licensure information. Initial work has been done by email, but a web-based data system is currently under construction.

## **Trauma System**

### **Recent Developments and Accomplishments:**

The trauma system law required that the Department of Health and Family Services design and develop a trauma system by January 2001 with implementation of the system by July 2002.

2000-2001 goals for the trauma system were dependent on several factors being in place. Those factors identified in the state plan included:

- Fiscal resources needed during the design and developmental stages. Those resources have not yet materialized.
- Integration with other activities within the Bureau of EMS and Injury Prevention. This has been accomplished within current resource limitations. Overlapping needs such as data collection and analysis, injury prevention and quality improvement are being considered across the bureau in making decisions on how to proceed.
- Cooperation of a variety of affected institutions and agencies such as hospitals, physicians, educational resources and the Departments of Health and Family Services and Transportation.

There has been widespread support by key parties that are and will be involved in a trauma system. The limiting factor to date has been the lack of funding.

## **SECTION 3 – STRATEGIC PLAN FOR WISCONSIN EMS**

### **BACKGROUND**

This section is a combination of two evaluations done for the Wisconsin EMS System. The first evaluation resulted in recommendations by a National Highway Traffic Safety Administration Technical Assistance Team which conducted their reassessment visit of Wisconsin's EMS System in April 2001. The recommendations of the reassessment team were reviewed in context with other identified state EMS issues in a strategic planning and prioritizing retreat held with the Bureau of EMS and Injury Prevention and the EMS Board. The priorities and timelines contained in Section III are the result of decisions made at the retreat. The category headings and background statements are consistent with the NHTSA program evaluation. NHTSA's program evaluation lists the following categories and subcategories:

#### **A. Regulation & Policy**

- Legislative Authority
- Lead Agency
- Operational Policies and Procedures
- Funding

#### **B. Resource Management**

- Central Coordination of System and Components
- Resource Assessment and Utilization
- Program Management at State, Regional, and Local Level(Structure)
- System Planning and Implementation
- Critical Incident Stress Management
- Technical Assistance

#### **C. Human Resources and Training**

- Central Authority/Responsibility
- Out-of-hospital Training Programs
- Institutional Support
- Certification/ Accreditation Programs
- Quality Management
- Special programs ATLS, PHTLS, BTLs, PALS etc.
- Critical Incident and Stress Management

#### **D. Transportation**

- Regional Plan/Needs Assessment
- Ground and Air Coverage
- Licensure and Inspection
- Evaluation Procedures

#### **E. Facilities**

- Categorization and Verification
- Specialty Care Designation
- Inter-facility Coordination
- Evaluation

#### **F. Communication**

- Statewide Coordination
- System Access
- Statewide Coverage and Linkages
- Dispatch Standards
- Quality Improvement

#### **G. Public Information and Education**

- Prevention Programs Based on Identified Need, e.g. Safety Belts, Speed
- Public Awareness of EMS and Involvement
- Provider Involvement
- Cooperation/collaboration with other Public Service Agencies, Fire, Enforcement

#### **H. Medical Direction**

- Authority
- On-line/Off-line (Direct/Indirect) Standards
- Treatment Protocols
- Review and Evaluation of Patient Care

#### **I. Trauma Systems**

- Legislation
- Facility Designation
- Triage and Transfer Guidelines
- Data Collection/Trauma Registry
- Integration with EMS System

#### **J. Evaluation**

- Out-of-hospital Data Collection System/Ambulance Report Forms
- System Standards
- Medical Care Review
- Quality Improvement Programs
- Data Linkage
- Confidentiality Protection

#### **NHTSA Technical Assistance Visit - 2001**

The Department feels that effective EMS programs should provide comprehensive, inclusive, and appropriate emergency health care for patients of all ages, adult and pediatric. DHFS utilized the Technical Assistance Team from NHTSA to assess the effectiveness of Wisconsin's State EMS System. This reassessment process allowed the DHFS to assess and evaluate the current system effectiveness in relation to the original EMS assessment (1990), subsequent EMS program modifications, and integration of new technology and nationally accepted standards.

The Technical Assistance Team (TAT) revisited the ten essential components of an optimal EMS system that were used in the *State of Wisconsin, An Assessment of Emergency Medical Services*, on November 13-15, 1990. These components provided an evaluation or quality assurance report based on 1989 standards. While examining each component, the TAT identified key EMS issues, reviewed the

State's progress since the original report, assessed its status, and used the 1997 Reassessment Standards as a basis for recommendations for EMS system improvement.

### **EMS Advisory Board and Bureau of EMS and Injury Prevention Strategic Planning Retreat – 2001**

The EMS Advisory Board and Bureau of EMS and Injury Prevention staff met for two days in June 2001 to review all pending NHTSA objectives and past Board and Bureau objectives to develop a priority list. This list was then further broken down into the short to long term framework and assigned to Board committees, the Physician Advisory Committee, the State EMS Medical Director and the Bureau of EMS and Injury Prevention. That document became the guide for State EMS activities from June 2001-June 2002.

### **Prioritization and Assignment of Goals**

The goals were prioritized and given a timeline for completion that has been divided into four categories:

**Immediate goals** – immediate term goals describe activities to be completed within one year. The activity may already be ongoing.

**Short-Term goals** – short-term goals describe activities to be completed within one – two years.

**Intermediate-Term goals** – intermediate-term goals describe activities to be completed in approximately two to five years.

**Long-Term goals** - long-term goals describe activities believed to require more than three years to initiate and less than 10 years to complete.

## **Essential Component: Regulation & Policy**

### **Background**

To provide a quality, effective system of emergency medical care, each state EMS system must have in place comprehensive enabling legislation with provision for a lead EMS agency. This agency has the authority to plan and implement an effective EMS system, and to promulgate appropriate rules and regulations for each recognized component of the EMS system (authority for statewide coordination; standardized treatment, transport, communication and evaluation, including licensure of out-of-hospital services and establishment of medical control; designation of specialty care centers; PIER programs). There is a consistent, established funding source to adequately support the activities of the lead agency and other essential resources which are necessary to carry out the legislative mandate. The lead agency operates under a single, clear management structure for planning and policy setting, but strives to achieve consensus among EMS constituency groups in formulating public policy, procedures and protocols. The role of any local/regional EMS agencies or councils who are charged with implementing EMS policies is clearly established, as well as their relationship to the lead agency. Supportive management elements for planning and developing effective statewide EMS systems include the presence of a formal EMS Medical Director, a Medical Advisory Committee for review of EMS medical care issues and an EMS Advisory Committee (or Board). The EMS Advisory Committee has a clear mission, specified authority and representative membership from all disciplines involved in the implementation of EMS systems.

### **Immediate – Term goal(s)**

- The State of Wisconsin should assure an adequate, stable and ongoing source of funding and personnel resources for the Bureau of EMS and Injury Prevention. Examples from other states

include an assessment on motor vehicle registration, a fee on driver's licenses, an assessment on moving traffic violations and a variety of others.

- The EMS Board, in coordination with other advisory bodies and various constituency groups, should develop a strategic plan to educate policy-makers regarding the importance of the emergency medical services system, including the financial and resource threats to its ongoing viability.
- The EMS Board and the Bureau of EMS and Injury Prevention should better delineate and streamline the inter-relationships of the various advisory councils and committees. To assure coordination and continuity, all committees and councils should report through the EMS Board. The relationship between the EMS Board and Statewide Trauma Advisory Council needs to be evaluated to determine the most effective way to integrate their functions.
- The EMS Board and the Department should, consistent with Wisconsin state laws and policies, develop methods for improved legislative advocacy.
- Complete the update of the Interfacility Transport guidelines and include hospital capabilities information in the interfacility guidelines.
- Complete remaining revisions to rules, including revision of the First Responder administrative rule (HFS 113).

#### **Short-Term Goals**

- The EMS Board should review the current use of Funding Assistance Program funds, including an evaluation of whether these funds are currently making the biggest possible impact on the Wisconsin EMS system. The Board should explore alternatives for utilization of FAP funds and make recommendations to the Department.
- Complete rule and implement program for first responders to use some advanced skills.
- Review and make recommendations for updated EMS language in statute.
- Ensure interfacility transports are conducted with adequate medical direction, personnel competencies and equipment.

### **Essential Component: RESOURCE MANAGEMENT**

#### **Background**

Central coordination and current knowledge (identification and categorization) of system resources is essential to maintain a coordinated response and appropriate resource utilization within an effective EMS system. A comprehensive State EMS plan exists which is based on a statewide resource assessment and updated as necessary to guide EMS system activities. A central statewide data collection (or management information) system is in place that can properly monitor the utilization of EMS resources; data is available for timely determination of the exact quantity, quality, distribution and utilization of resources. The lead agency is adequately staffed to carry out central coordination activities and technical assistance. There is a program to support recruitment and retention of EMS personnel, including volunteers.

#### **Immediate Goals:**

- Secure stable funding sources to ensure adequate staffing for resource management activities including, but not limited to:
  - Technical Assistance;
  - Data Support, Collection, and Analysis;
  - First Responder Certification;
  - Dispatch/Communication Program.

- Create a talking points paper on the value of the EMS system for legislators and public
- Develop programs for continuing the recruitment and retention of volunteer EMS personnel.
- Verify submitted ambulance service operation plans through periodic, on-site evaluations.
- Complete the EMS Board funding report on ambulance services in Wisconsin.
- Form coalitions between EMS committees and EMS stakeholders.

#### **Short-Term Goals:**

- Study and report on the EMS role and needs in Disaster Management. Develop guidelines on how EMS should integrate with the Emergency Management plans already in existence.
- Assist with grassroots regional coordination of service, form regional alliances, and zones of collaboration. Coordinate with regional trauma development.

### **Essential Component: HUMAN RESOURCES AND TRAINING**

#### **Background**

The EMS Education Agenda for the Future is a vision for the future of EMS Education and a proposal for an improved structured system to educate the next generation of EMS professionals. It includes a vision of improved efficiency in the national EMS education process, with enhanced consistency in education quality and increased entry-level graduate competence.

To ensure that the patient care provided by EMS is part of the overall management of the ill or injured patient, innovative approaches to education must be employed. These innovations must address the quality, content and accessibility of the education programs, both for initial training and for ongoing continuing education of EMS providers.

#### **Immediate goal:**

- Develop the Wisconsin First Responder Curriculum for implementation when the First Responder administrative rules are completed
- Evaluate the compliance of the Wisconsin EMS education system with the *EMS Education Agenda for the Future* and make specific recommendations to ensure that the Wisconsin EMS education system is consistent.
- Evaluate possibility of transition courses between license levels.
- Research the provision of continuing education through various educational delivery options.
- Assessment of content in refresher training at all levels.

#### **Short-Term goals:**

- Establish a mechanism to obtain and utilize data to determine that approved training centers are providing quality instruction.
- Develop a method, such as random audits, to ensure the consistent reliability and quality of the re-licensing process.
- Establish a plan to regularly review the efficacy of each EMS Curriculum. This would include developing a process, as well as a timeline.
- Educate providers on data confidentiality issues.

#### **Intermediate goals:**

- Research and evaluate how diagnostic based education can be incorporated into the EMT-Basic course to enhance the current assessment based curriculum.

## **Essential Component: TRANSPORTATION**

### **Background**

Safe, reliable ambulance transportation is a critical component of an effective EMS system. The transportation component of the State EMS plan includes provisions for uniform coverage, including a protocol for air medical dispatch and a mutual aid plan. This plan is based on a current, formal needs assessment of transportation resources, including the placement and deployment of all out-of-hospital emergency medical care transport services. There is an identified ambulance placement or response unit strategy, based on patient need and optimal response times. The lead agency has a mechanism for routine evaluation of transport services and the need for modifications, upgrades or improvements based on changes in the environment (i.e., population density). Statewide, uniform standards exist for inspection and licensure of all modes of transport (ground, air, water) as well as minimum care levels for all transport services (minimum staffing and credentialing). All out-of-hospital emergency medical care transport services are subject to routine, standardized inspections, as well as "spot checks" to maintain a constant state of readiness throughout the State. There is a program for the training and certification of emergency vehicle operators.

### **Immediate goals:**

- Develop objective criteria for approval/disapproval of ambulance service operation plans.

## **Essential Component: FACILITIES**

### **Background**

It is imperative that the seriously ill patient be delivered in a timely manner to the closest appropriate facility. The lead agency has a system for categorizing the functional capabilities of all individual health care facilities that receive patients from the out-of-hospital emergency medical care setting. This determination should be free of political considerations, is updated on an annual basis and encompasses both stabilization and definitive care. There is a process for verification of the categorizations (i.e., on-site review). This information is disseminated to EMS providers so that the capabilities of the facilities are known in advance and appropriate primary and secondary transport decisions can be made. The lead agency also develops and implements out-of-hospital emergency medical care triage and destination policies, as well as protocols for specialty care patients (such as severe trauma, burns, spinal cord injuries and pediatric emergencies) based on the functional assessment of facilities. Criteria are identified to guide interfacility transport of specialty care patients to the appropriate facilities. Diversion policies are developed and utilized to match system resources with patient needs; standards are clearly identified for placing a facility on bypass or diverting an ambulance to another facility. The lead agency has a method for monitoring if patients are directed to appropriate facilities.

### **Immediate Goal:**

- Assess the current impact of hospital diversion on EMS services, particularly in urban areas. Address diversions by developing a list of important implications. Get feedback from the Wisconsin Hospital Association and other stakeholders. Assess impact of hospital diversion and develop criteria for Emergency Department diversion decisions.
- Educate stakeholders on potential impact of diversions.

**Short-Term Goal:**

- Initiate a process to document what is already known about the capabilities of all hospitals that interface with Wisconsin EMS. Incorporate this information into the prehospital triage and interfacility destination policies being developed.

**Essential Component - COMMUNICATION****Background**

A reliable communications system is an essential component of an overall EMS system. The lead agency is responsible for central coordination of EMS communications (or works closely with another single agency that performs this function) and the state EMS plan contains a component for comprehensive EMS communications. The public can access the EMS system with a single, universal phone number, such as 9-1-1 (or preferably Enhanced 9-1-1), and the communications system provides for prioritized dispatch. There is a common, statewide radio system that allows for direct communication between all providers (dispatch to ambulance communication, ambulance to ambulance, ambulance to hospital, and hospital to hospital communications) to ensure that receiving facilities are ready and able to accept patients. Minimum standards for dispatch centers are established, including protocols to ensure uniform dispatch and standards for dispatcher training and certification. There is an established mechanism for monitoring the quality of the communication system, including the age and reliability of equipment.

**Immediate Goal:**

- The Department and EMS Advisory Board will review and comment on statutory language for certification of dispatchers and dispatch centers.
- Complete the revised state EMS communication plan and disseminate it to providers.

**Intermediate-Term Goal:**

- Establish on-line medical control and resource hospital standards.

**Essential component - PUBLIC INFORMATION AND EDUCATION****Background**

To effectively serve the public, each State must develop and implement an EMS public information and education (PI&E) program. The PI&E component of the State EMS plan ensures that consistent, structured PI&E programs are in place that enhance the public's knowledge of the EMS system, support appropriate EMS system access, demonstrate essential self-help and appropriate bystander care actions, and encourage injury prevention. The PI&E plan is based on a needs assessment of the population to be served and an identification of actual or potential problem areas (i.e., demographics and health status variable, public perceptions and knowledge of EMS, type and scope of existing PI&E programs). There is an established mechanism for the provision of appropriate and timely release of information on EMS-related events, issues and public relations (damage control). The lead agency dedicates staffing and funding for these programs, which are directed at both the general public and EMS providers. The lead agency enlists the cooperation of other public service agencies in the development and distribution of these programs, and serves as an advocate for legislation that potentially results in injury/illness prevention.

**Immediate Goal:**

- The Bureau of EMS and Injury Prevention should develop a broad-based public information and education plan that would target, in part, policy makers and the general public. Among other topics, this should address emergency medical services and trauma systems.
- The Bureau, through EMSC and the Injury Prevention Section, should continue to plan and host an annual conference.

**Short-term Goals:**

- The Bureau should include additional information about public information and education in the Wisconsin *EMS and Injury Prevention Handbook*.
- The Bureau should incorporate at least one injury prevention focused educational session yearly at all EMS related conferences.

**Essential Component: MEDICAL DIRECTION****Background**

EMS is a medical care system that involves medical practice as delegated by physicians to non-physician providers who manage patient care outside the traditional confines of office or hospital. As befits this delegation of authority, the system ensures that physicians are involved in all aspects of the patient care system. The role of the State Medical Director for EMS is clearly defined, with legislative authority and responsibility for EMS system standards, protocols and evaluation of patient care. A comprehensive system of medical direction for all out-of-hospital emergency medical care providers (including BLS) is utilized to evaluate the provision of medical care as it relates to patient outcome, appropriateness of training programs and medical direction. There are standards for the training and monitoring of direct medical control physicians, and statewide, standardized treatment protocols. There is a mechanism for concurrent and retrospective review of out-of-hospital emergency medical care, including indicators for optimal system performance. Physicians are consistently involved and provide leadership at all levels of quality improvement programs (local, regional, statewide).

**Immediate Goals:**

- Develop due process guidelines for use by local EMS medical directors.
- Continue to work to enhance the required credentials of EMS medical directors, based upon the level of the EMS programs involved.
- Develop periodic statewide and regional forums for local EMS medical directors to meet with the state EMS medical director and other Bureau staff, discuss common issues, and share solutions, and exploit electronic options for facilitating continual interaction among EMS medical directors.
- Ensure that all interfacility patient transports are conducted with adequate medical direction and appropriate availability of on-line medical control.

**Essential Component – TRAUMA SYSTEMS****Background**

To provide a quality, effective system of trauma care, each State must have in place a fully functional EMS system; trauma care components must be clearly integrated with the overall EMS system. Enabling legislation should be in place for the development and implementation of the trauma care component of the EMS system. This should include trauma center designation (using ACS-COT, APSA-COT and other national standards as guidelines), triage and transfer guidelines for trauma

patients, data collection and trauma registry definitions and mechanisms, mandatory autopsies and quality improvement for trauma patients. Information and trends from the trauma registry should be reflected in PIER and injury prevention programs. Rehabilitation is an essential component of any statewide trauma system and hence these services should also be considered as part of the designation process. The statewide trauma system (or trauma system plan) reflects the essential elements of the Model Trauma Care System Plan. The goals of the WI Trauma System are to ultimately prevent injuries from occurring and to reduce the severity of injuries once they do occur.

**Immediate Goals:**

- Continue to pursue dedicated funding for implementation and operation of the trauma system.

**Short-term Goals:**

- Coordination of data collection efforts with the Trauma System Development plan.

<b>Essential Component - EVALUATION</b>
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**Background**

A comprehensive evaluation program is needed to effectively plan, implement and monitor a statewide EMS system. The EMS system is responsible for evaluating the effectiveness of services provided victims of medical or trauma related emergencies, therefore the EMS agency should be able to state definitively what impact has been made on the patients served by the system. A uniform, statewide out-of-hospital data collection system exists that captures the minimum data necessary to measure compliance with standards (i.e., a mandatory, uniform EMS run report form or a minimum set of data that is provided to the state); data are consistently and routinely provided to the lead agency by all EMS providers and the lead agency performs routine analysis of this data. Pre-established standards, criteria and outcome parameters are used to evaluate resource utilization, scope of services, effectiveness of policies and procedures, and patient outcome. A comprehensive, medically directed statewide quality improvement program be established to assess and evaluate patient care, including a review of process (how EMS system components are functioning) and outcome. The quality improvement program should include an assessment of how the system is currently functioning according to the performance standards, identification of system improvements that are needed to exceed the standards and a mechanism to measure the impact of the improvements once implemented. Patient outcome data is collected and integrated with health system, emergency department and trauma system data; optimally there is linkage to data bases outside of EMS (such as crash reports, FARS, trauma registry, medical examiner reports and discharge data) to fully evaluate quality of care. The evaluation process is educational and quality improvement/system evaluation findings are disseminated to out-of-hospital emergency medical care providers. The lead agency ensures that all quality improvement activities have legislative confidentiality protection and are non-discoverable.

The EMS Agenda for the Future identifies EMS data systems as an integral part of every EMS attribute or component. It documents the lack of EMS data currently available and promotes the development of EMS information systems. The recently released GAO report on EMS data identified the lack and need of EMS data which makes it difficult to quantify the needs, status, or state of EMS across the country. HCFA (now known as Centers for Medicare & Medicaid Services) has stated that EMS reimbursement strategies are severely constrained by the lack of EMS data, collected in a uniform manner, which can be applied to any reimbursement model.

The American Heart Association has identified the lack of EMS data as a significant problem to targeting and improving the treatment, survival, and outcome of cardiac arrest, myocardial infarction,

and stroke victims. They promote the need for statewide and national EMS informational systems capable of providing this information.

#### **Immediate Goals:**

- Provide summary feedback information, derived from submitted data, to the state's EMS provider agencies.
- Develop a process (evaluation tools) to evaluate all activities and incorporate into existing committee work with support from the Bureau for analysis.
- Ensure an evaluation component to the injury & disease prevention related activities

#### **Short-Time Goals**

- Create and oversee work of a Continuous Quality Improvement (CQI) ad-hoc committee to develop ongoing CQI programs. CQI work should include templates for evaluation and action that can be adapted at the state and local EMS levels.
- Encourage physician involvement in CQI.
- Develop an internet-based EMS patient care report that would automatically populate the state's EMS database, enabling immediate queries at the Bureau of EMS and Injury Prevention and also limited queries by EMS provider agencies. Data implementation issues include:
  - An internet-based reporting system
  - Assessing overall capability to collect and transmit defined elements.
  - Evaluation of data initiative for compatibility with existing software programs being used by providers as well as hospital outcome data.
- Develop a collaborative relationship between the Bureau of EMS and Injury Prevention and the Bureau of Health Information that facilitates data sharing and linkage to outcome information.

#### **Intermediate-Term goals**

- Encourage use of data collection and analysis software to track and analyze service delivery, provide a basis for quality improvement, and measure EMS care both locally and statewide to assist with decisions on training and scope of practice.
- Development of focal strategies for data analysis. Identify a select number of conditions that will be analyzed for frequency of use and efficacy of treatment.
- Identify key local coordinators to compile results of local and statewide data: Medical Directors, Hospitals, EMS Coordinators/Training Centers.
- Evaluate rule changes for scope of practice and training issues to determine impact on patient care.
- Enlist the participation of hospitals so that emergency room and discharge data can be used to build the necessary linkages through the health care continuum. Data stakeholders, including hospital EMS coordinators, EMS Medical Directors and other state agencies will be an essential component of this process.

### **Special Component - EMS for CHILDREN**

#### **Background**

To create a new five-year plan, staff from the Division of Public Health, Bureau of Emergency Medical Services and Injury Prevention joined with expert advisers, representing the spectrum of care on the EMSC continuum, to revise previous objectives, form new objectives, and develop new activities to support these objectives. Inherent to EMSC is the concept of a broad-based approach—

one that considers the entire continuum of care, from prevention through rehabilitation; involves all professional organizations, traditional and nontraditional; and benefits from the resources and energy of various consumer groups. EMSC recognizes that its success depends upon the participation of all possible stakeholders. To meet that end, five core values, or key concepts, essential to meeting the vision of an optimal EMS/EMSC system were identified for inclusion in the new plan. Woven throughout the various goals, objectives, and activities that make up this plan, EMSC's Core Values are evident. They include: 1) Improving Emergency Care; 2) Integration and Access; 3) Education for the Public and Professionals; 4) Data Collection and Research; and 5) Injury and Illness Prevention.

#### **Immediate Goals (<1 Year):**

- Development of a Wisconsin EMSC Resource Center to support sustainability, funding, increased staff support and expansion of the initiatives related to pediatric emergency care.
- Requirement of pediatric representation on Regional Trauma Advisory Councils (RTAC) within the structure of the State Trauma System development.
- Plan developed to address organized youth sporting events related to emergency care.
- Study on Emergency Preparedness Guidelines for Physician Offices, Clinics and Urgent Care Centers needs to be completed and published.
- Development of an electronic Child Alert database for children with special healthcare needs which is accessible 24 hours a day/7 days a week.
- Expansion of the Child Alert program in all counties of Wisconsin.
- Pediatric patient care protocols are to be approved by the Bureau and included into EMS education at all levels of prehospital care. They will be disseminated to all EMS services statewide.

#### **Short-Term Goals (1-2 Years):**

- Specific system of verification in pediatric resources and capabilities for hospitals.
- Pediatric Education for the Prehospital Provider (PEPP) will be included as standard refresher curriculum.
- CPR and First Aid home study kit to be completed for Child Care providers.
- Basic Emergency Lifesaving Skills in Schools (BELSS) expansion including Wisconsin, Minnesota, North Dakota and South Dakota.
- Statewide database available to analyze pediatric emergency care.
- Interfacility transfer guidelines which include pediatric care need to be implemented statewide.

### **Special Component - BIOTERRORISM**

#### **Background**

Recent events have changed planning and preparation for EMS service to include a component for terrorism response. In the 2002-2003 time period there will be increased State, Regional, County and Local activities related to preparation and response to a mass casualty event. Funding for increased preparedness for terrorism attacks will also serve the dual role of preparing EMS for any type of event with a large number of casualties. As the State Bioterrorism activities unfold, the challenge for EMS will be to be involved in discussions, preparations and exercises that coordinate all the involved stakeholders such as hospitals, emergency management, local public health departments and other public safety providers.

**Immediate Goals:**

- Assure State and regional involvement of EMS in emergency response plans and exercises.
- Procure federal funding to incorporate training of EMTs in basic hazardous materials awareness.
- Procure federal funding to improve telecommunications in a mass disaster scenario.

**Short-Time Goals:**

- Procure federal funding to enhance EMS data collection that can be used for early surveillance of potential widespread illnesses.